PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

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PCT

WRITTEN OPINION OF THE
INTERNATIONAL PRELIMINARY
EXAMINING AUTHORITY

(PCT Rule 66)

Date of mailing *(day/month/year)*	03-06-2005
Applicant's or agent's file reference: WY/sd 030346WO	**REPLY DUE** within 60 days from the above date of mailing

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/IB 2003/002176	10-06-2003	

International Patent Classification (IPC) or both national classification and IPC
H04Q

Applicant
Nokia Corporation et al

1. ☐ The written opinion established by the International Searching Authority:
   ☐ is ☐ is not
   considered to be a written opinion of the International Preliminary Examining Authority.

2. This First (first, etc.) opinion contains indications relating to the following items:
   - ☒ Box No. I Basis of the opinion
   - ☐ Box No. II Priority
   - ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
   - ☐ Box No. IV Lack of unity of invention
   - ☒ Box No. V Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
   - ☐ Box No. VI Certain documents cited
   - ☐ Box No. VII Certain defects in the international application
   - ☐ Box No. VIII Certain observations on the international application

3. The applicant is hereby **invited to reply** to this opinion.
   When? See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(e).
   How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.
   Also For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4*bis*. For an informal communication with the examiner, see Rule 66.6. For an additional opportunity to submit amendments, see Rule 66.4.
   If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary report on patentability (Chapter II of the PCT) must be established according to Rule 69.2 is: 10-10-2005

Name and mailing address of the IPEA/SE	Authorized officer
Patent- och registreringsverket Box 5055 S-102 42 STOCKHOLM Facsimile No. 46 8 667 72 88	Peter Hedman/MN Telephone No. 46 8 782 25 00

Form PCT/IPEA/408 (cover sheet) (January 2004)

WRITTEN OPINION OF THE
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

International application No.
PCT/IB 2003/002176

Box No. V **Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	
	Claims	
Inventive step (IS)	Claims	1-18
	Claims	
Industrial applicability (IA)	Claims	
	Claims	

2. Citations and explanations:

The invention concerns a method and a device for exchanging signals in a transceiver operating in a first frequency band and for receiving signals in a receiver operating in a second frequency band.
The object of the invention is to improve the performance of the receiver in spite of experienced interference.

Cited documents:

D1. WO 01 06669 A
D2. US 6 278 723 B1

Document D1 is considered to represent the closest prior art. D1 describes a method and a system for maintaining operation of a receiver (42) co-located with a transceiver (44). The timing pattern during which the transceiver is transmitting is determined. The receiver is desensitized during the determined timing pattern in order to avoid the interference generated by the transceiver (See page 2, line 3-page 4, line 25, page 5, line 29-page 6, line 26; page 7, line 5-page 10, line 16, page 10, line 26-page 11, line 15; page 12, line 4-16).

The invention according to claims 1 and 12 differ from the method and system in D1 in that D1 fails to suggest any processing portion adapted to detect external transmitters which are producing signals which are interfering with the signals received by the receiver.

Due to these features, degradation caused by transmitters which are located in the vicinity of the receiver is reduced. Consequently, with the background of D1, the problem is to produce a method which detects and which achieves better protection against external interfering sources.

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.
Continuation of: Box V (I)

A solution to this problem is known from document D2, which describes a method for minimizing the probability of self-interference among neighbouring wireless networks. A master transceiver (102) of a first wireless network is adapted to monitor neighbouring wireless networks to discover a strongest interfering master transceiver in one of the neighbouring networks. The first master transceiver then time-aligns hop intervals of the first master transceiver with the hop intervals of the strongest interfering master transceiver to reduce interference between the two transceivers (See abstract; column 1, line 1-column 3, line 36).

Using the prior art of D1 as a starting point, a person skilled in the art trying to solve the problem stated above would, with the teachings of D2, have access to a processing portion which is able to detect the presence of external interfering signals.

Therefore, the skilled person faced with the problem of identifying and reducing interference would come up with such a solution by way of combining D1 with D2. Especially since both the claimed invention and the method described in D1 is basing the retrieved timing information on a co-located transceiver, i.e. both documents are focusing on reducing interference which is employing the same timing for transmissions as a co-located transceiver. Since no other technical effect than the ability to detect interfering external signals has been achieved the subject-matter defined in claims 1 and 12 is not considered to go beyond what can be expected from a person skilled in the art. Therefore, the subject-matter defined in claims 1 and 12 does not involve an inventive step.

In D1 the receiver may be controlled by a switch, by automatic gain control or by a combination of both. Consequently, both claims 4, 6, 9, 13, 14 and 16 fail to describe a solution which involve an inventive step.

Since D1 describes a GPS receiver, what is suggested in claim 10 is already known. Considering what is already known from D1 and D2, the implementation of an equivalent device adapted for use with a co-located digital video broadcast-terrestrial receiver is considered obvious to a person skilled in the art. Claim 11 therefore fails to involve an inventive step.

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.
Continuation of: Box V (II)

The remaining claims are considered to involve particular detail executions obvious to a person skilled in the art. Therefore, the invention according to these claims is not considered to involve an inventive step.

To sum up, the invention as claimed in claims 1-18 is novel, but fails to involve an inventive step. The invention is industrially applicable.